

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: May 19, 2003

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA 155 Shelton- Kitsap # 4

TO: James A. Jellison, Natural Resource Specialist

Proposed Action: Vegetation Management along the Shelton Kitsap # 4 230 kV transmission line corridor from structure 1/1 through structure 32/3 (reference line ADNO 8357). Right of way width averages 290 feet.

Location: The project area is located in Mason and Kitsap Counties, Washington.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to remove unwanted vegetation along the right-of-way, access roads and around tower structures along the subject transmission line corridors. Approximately 31.5 miles of right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 3.6 miles of access roads will be managed using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Tower sites will be treated 30 feet from center of poles and or tower legs using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Vegetation management is required for unimpeded operation, reliability, and maintenance of the subject transmission line. See Section 1 of the attached checklist for a complete description of the proposal.

Analysis: Please see the attached checklists for the resources present. Applicable findings and conservation and avoidance measures are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

Unwanted vegetation, reclaim trees, and danger trees will be controlled and/or removed using selective and nonselective methods that will include hand cutting, mowing, and herbicidal treatment. All methods of herbicide treatment may be used (except aerial) dependent on site conditions/restrictions. This proposal covers approximately 1082 acres of land between towers 1/1 through 32/5 on the Shelton-Kitsap No. 4 230kV line (corridor reference line). The entire width of the corridor needs to be managed.

2. *Identify surrounding land use and landowners/managers and any conservation and avoidance measures.*

The subject corridor traverses private, and public lands in Mason and Kitsap Counties, used for residential, rural residential, timber, DNR managed lands, and the city of Bremerton. Landowners requiring notification or under tree and brush agreements are shown in Section 2.3 and 2.4 of the attached checklists. The Washington Department of Natural Resources has been contacted and provided information regarding proposed vegetation management activities. Any remaining landowners will be contacted (letters, personal contact, door hangers, etc.) by BPA before and during the project. Any input received will be incorporated into the prescription/cut sheets.

3. *Identify natural resources and any conservation and avoidance measures.*

Section 3 of the attached checklist identifies the natural resources present in the area of the proposed work. The following cites resources found along with applicable conservation and avoidance measures:

Riparian Habitat:

Includes all wetlands, streams, and creeks meeting the definition of riparian habitat. Several areas were identified. See Section 3.1 of the checklists for a complete listing and conservation and avoidance methods.

Riparian Habitat Conservation and avoidance measures:

- Within 30.5 m (100 ft). Of any stream, wetland, or other water body vegetation will be left intact where possible and only selective hand cutting and approved herbicide treatments will be implemented.
- County or private lands, up to 30.5 m (100 ft.) of any non Essential Fish Habitat (EFH) listed stream, wetland, or other water body. Available: all manual, spot and localized herbicide treatments. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.
- Within 35ft. to edge or high water mark of any non Essential Fish Habitat (EFH) listed stream, wetland, or other water body only cut-stump and localized or spot chemical treatments using practically non-toxic to slightly toxic formulations of triclopyr TEA (Garlon 3A). Moderately toxic to very highly toxic herbicides (to aquatic species) or those herbicides containing a groundwater or surface water label advisory will not be used in this zone.
- Outside 35 ft. of any of non Essential Fish Habitat (EFH) listed stream, wetland, or other water body cut-stump (spot) and localized chemical treatments of Triclopyr BEE (Garlon 4) may be used.

Drinking Water Supply:

Three drinking water wells and one monitoring well were identified on or near the right of way boundary. The corridor crosses a protected watershed from towers 1/1 –1/3. See section 3.2 for a complete listing, description, and location of drinking water resources.

Drinking Water Supply Conservation and avoidance measures:

- § Drinking water and monitoring wells: No chemical application of a herbicides containing a groundwater or surface water label advisory within a 164-foot radius of any water wells or monitoring wells. Garlon 3A may be used up to a 50 foot radius of the wells. Garlon 4A will not be used within a 164 foot radius of the wells.
- § Water shed: No herbicides will be used in this zone. Selective cutting only.

T & E Species:

- § **T&E fish Species and Essential fish habitat:** Review of BPA's T2view database and Subasin Data Browser show Threatened and Endangered species of anadromous fish are present in Gorst Creek near Kitsap Substation. Additionally several streams that cross the transmission line corridor are listed as Essential Fish Habitat for Fall Run Chinook and Coho Salmon. See section 3.3 of the checklist for details. By following the conservation and avoidance measures listed below and in the above listed C&A Measures for riparian habitat the project will have a **no affect** on listed anadramous species or their Essential Habitat.

Conservation and avoidance measures:

- § All conservation and avoidance measures listed under riparian habitat will be implemented. Along with the more protective measures listed below.
- § No herbicides will be applied within 100 feet of the waters edge of any T&E or Essential Fish Habitat listed water bodies. Spot spraying of non-toxic to practically non-toxic (to aquatic species) herbicides may be applied 100-200 feet from the waters edge.
- § **Additional T & E Species:**

Review of BPA T2View databases on May 16, 2003 shows no additional T&E species are known to occur or nest within ½ mile of the subject transmission line corridor.

Cultural resources:

Tom Strong Cultural Resources Manager for the Skokomish tribe was contacted regarding cultural resources in the transmission corridor. No cultural resource sites are known, should any cultural resources be discovered during the vegetation management project, work will be stopped in the vicinity and the Skokomish tribe, the regional environmental specialist, and the BPA archeologist will be contacted. No work will continue in the area until the site has been thoroughly evaluated and released. See section 3.6 of the checklist for additional information.

Steep Slopes:

Areas with Slopes in excess of 20% occur within the transmission corridor. Slopes/draws with > 20% slope will either be skipped or trees whose tops are within 50 feet of the conductor at max sag will be selectively cut. No herbicide will be used on slopes of this nature to maintain soil stability. See section 3.7 of the checklist for detailed areas.

4. Determine vegetation control methods.

Vegetation will be managed/removed using manual, mechanical, and chemical methods, as described in Section 4 of the attached checklists.

5. Determine debris disposal and re-vegetation methods, if necessary.

Debris will be disposed onsite using either chip, lop and scatter, or mulch techniques as described in Section 5 of the attached checklists.

Native grasses and low growing species are present in the areas of the right-of-way that will be managed. These populations will seed into the areas lightly disturbed by vegetation management.

BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector's vehicle will be present on the site. A brush machine will mulch*(see checklist) the structure sites and right-of-way roads where Scotch Broom and blackberries are present.

Re-vegetation needs will be determined onsite. Any areas identified with limited ground cover will be replanted with native plant species.

6. Determine monitoring needs.

The project will be inspected during the work period, and again in early summer to determine vegetation management effectiveness and revegetation needs. The line will be patrolled annually after treatment to monitor the effectiveness of the treatment measures.

7. *Prepare appropriate environmental documentation.*

Findings: This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ Greg P. Tippetts

Greg P. Tippetts
Physical Scientist (Environmental)

CONCUR: /s/ Thomas C. McKinney
Thomas C. McKinney
NEPA Compliance Officer

DATE: 05/23/2003

Attachment

cc:

L. Croff – KEC-4
T. McKinney – KEC-4
C. Leiter – KEP-4
J. Meyer – KEP-4
G. Tippetts – KEPR/Olympia
P. Key – LC-7
J. Hilliard Creecy – T-DITT2
D. Hollen – TF/DOB-1
D. Krauss – TFO/Olympia
S. Martin – TFO/Olympia
G. Westling – TFOF/Olympia
Environmental File – KEC-4
Official File – KEP-4 (EQ-14)

**Vegetation Management Checklist
Shelton - Kitsap**

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

See Handbook — [List of Right-of-way Components](#) for checkboxes and the requirements for the components [Rights-of-way](#), [Access Roads](#), [Switch Platforms](#), [Danger Trees](#), and [Microwave Beam paths](#).

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Shelton-Kitsap No. 4 Olympia-Kitsap No. 3 Shelton-Kitsap No. 2	32 mi (1/1 to 32/5), 2-230Kv and 1- 115Kv	287.5', variable width	31.5 mi.
Shelton-Fairmount No. 3&4 and No. 1 & 2	2-230Kv & 2-115Kv		1 mi.

Right Of Way:

Right-of-Way – clearing in right-of-way

A combination of mulching the easement because of the Scotch broom and the cut, lop and scatter of tall growing species will be utilized to treat hazardous vegetation and this will be followed up with herbicide treatment.

Transmission Structures – clearing around

All structures will be cut to 30 feet from the center of the pole and/or from each leg of the steel towers and the stumps will be treated with herbicide.

Access Road clearing - approximate miles 3.6 miles

All access roads will mulched due to the encroachment of Scotch broom and stubble treat the stumps.

Reclaim (“C”) Trees

Refer to the prescription cut sheets that notes the location of the draws and the edge of the right-of-ways where reclamation activities will be occurring. The majority of the reclaiming the edge of the right-of-way will occur on the left edge of the Olympia-Kitsap No. 3 easement, scattered from mile 21 to 50.

Danger Trees

I have identified 5 danger trees to be cut in the 15 mile, right side.

1.2 Describe the vegetation needing management.

See handbook — [List of Vegetation Types](#), [Density](#), [Noxious Weeds](#) for checkboxes and requirements.

Vegetation Types:

Douglas Fir	True Fir
Hemlock	Alder
Maple	Willows
Cottonwood	Wild Cherry
Madrone	Noxious Weeds - Scotch Broom
Blackberries	

1.3 List measures you will take to help promote low-growing plant communities. If promoting low-growing plants is not appropriate for this project, explain why. See Handbook — for requirements and checkboxes.

Cut stump or follow-up herbicide treatments on sprouting-types species will be carried out to ensure that the roots are killed. Vegetation that will grow tall will be selectively eliminated before it reaches a height or density to begin competing with low-growing species.

1.4 Describe overall management scheme/schedule.

See Handbook - [Overall Management Scheme/Schedule](#).

Initial entry – All tall growing vegetation will be cut and chemically treat the stumps to prevent grow-in trees. Access, right-of-way roads and structure sites are to be cut and treated.

Subsequent entries – A follow-up chemical foliar treatment is scheduled to begin in the early summer of 2003.

Future cycles – Every 4 years, a maintenance contract will be necessary to treat sprouts. The use of herbicides on the initial and subsequent cycles should reduce the quantity and cost of work.

2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

2.1 List the types of landowners and land uses along your corridor.

See Handbook — [Landowners/Managers/Uses](#) for requirements, and [List of Landowners/Managers/Uses](#) for a checkbox list.

Landowners/Managers/Uses:

- Urban Property Owners
- Resident Rural Property Owners
- Timber Managed Lands
- DNR Managed Lands
- City of Bremerton Public works and utilities

2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.

See Handbook — [Methods for Notification and Requesting Information](#) for requirements.

Olympia will send letters to the property owners about 2 weeks prior to cutting the brush. Door to door contact will be made where it is warranted.

2.3 List the specific land owner/land use measures — determined from the handbook or through your consultations with the entities — that will be applied.

See handbook — [Requirements and Guidance for Various Landowners/Uses](#) for requirements and guidance, also [Residential/Commercial](#), [Agricultural](#), [Tribal Reservations](#), [FS-managed lands](#), [BLM –managed lands](#), [Other federal lands](#), [State/ Local Lands](#).

Span		Landowner/use	Specific measures to be applied
From	To		
39/3+ 825 O-K#3 line only	39/4+ 250	T&B Agreement LU# 86125	Reclaim trees along the north edge of the easement will be cut.
21/3+1200	21/4+100	T&B Agreement LU# 84110	The property owner is in compliance with the agreement.

23/2+ 300	23/3+ 1350	Overton Tree Farm Cont # 14-03-68429	I contacted property owner that the trees are out of compliance.
23/4+ 1225	26/2+ 150	Overton Tree Farm Cont # 14-03-68429	I contacted property owner that the trees are out of compliance.
26/2+0	26/2+ 100	Kriegler Dev. Cont. 14-03-62889	I tried to contacted the property owner that the trees are out of compliance but without success.
28/5+ 450	29/1+ 100	Property owner is not known, No known Xmas Tree Agreement	Xmas trees are < 8' ht.
29/5+ 150 Rt of C/L. O-S#3 line	600	Property owner Applying for T&B Agree.	
31/4+ 0	31/5+ 500, Lt. of outside conductor of S-K#4.	City of Bremerton, No tree agreement	
31/6+ 950	1250, S-K#4.	City of Bremerton, Letter of consent 11-7-72, Fish Rearing Facilities	

2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.

See handbook — [Landowner Agreements](#) for requirements.

Overton and Kriegler Development tree farms are out of compliance.

2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure's to take due to the informal use.

See handbook — [Casual Informal Use of Right-of-way](#) for requirements.

NA

2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.

See handbook — [Other Potentially Affected Publics](#) for requirements and suggestions.

I have contacted the tribe near Rochester, Washington. They are not aware of any cultural sites.

3. IDENTIFY NATURAL RESOURCES

See Handbook — [Natural Resources](#)

3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used. EFH = Essential Fish Habitat.

See Handbook — [Water Resources](#) for requirements for working near water resources including buffer zones.

Span		Waterbody	T&E	Method	Herbicide	Application Technique	Buffer	Other
From	To							
1/1+ 0	2/1+ 1250	City of Shelton Watershed	No	Cut Stump	NO herbicide	NA		Selective Cutting
3/1+ 500	700	Shelton Creek, Int	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
20/5+ 500 Oly-Kit#3	700	Shelton Creek, Int	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
3/2+ 350	650	Wetlands	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
3/4+ 815	885	John's creek	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
5/2+ 600	900	Rainbow Lake, Lt edge	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
5/4+ 0	150	No name lake, Lt edge	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
6/1+ 950	1150	Cranberry creek	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
6/5+ 935	1010	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
8/2+ 265	335	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
8/2+ 700	900	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting

9/1+ 0 diagonal	1250	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
10/1+ 500	700	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
10/3+ 115	170	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
11/2+ 1165	1235	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
11/3+ 0 diagonal	650	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
12/2+ 600	800	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
13/2+ 465 diagonal	635	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
15/1+ 800	1000	Sherwood Creek	No	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100' for EFH	Selective Cutting
15/2+ 0	1000	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
15/2+ 900	1000 Under S-K#4	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
15/3+ 0 Lt of C\L	1075 of S-K#4	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
15/4+ 0 Lt of C\L	1225 of S-K#4	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
16/5+ 815	885	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting

17/2+ 465	535	No name creek-inter	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
21/3+ 515	585	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
21/3+ 1200	1275 SF#1&2	Pond	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
22/4+ 415	485	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
25/1+ 165 diagonal	235	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
25/3+ 0 diagonal	1100	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
25/4+ 800	870	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
26/1+ 200	900	Wetland	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
27/1+ 165	235	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
27/3+ 600 diagonal	1025	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
27/4+ 0	1075	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
27/5+ 75	150	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
28/1+ 765	835	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting

28/2+ 0	200	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
28/2+ 675	745	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
28/3+ 125	195	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
29/3+ 465	535	No name creek-inter	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
29/4+ 365	435	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
29/5+ 200 meanders	900 under S-K#4	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
30/3+ 400	850 diagonal	Parish creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
30/5+ 900	1100	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
31/1+ 900	1000	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
31/2+ 300	500 Under S-K#4	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
31/6+ 0 Under	300 O-K#3	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
31/6+ 800	950 S-K#4	Gorst creek	Yes	Cut Stump	Garlon 3A	Spot treat 100' of buff.	100'	Selective Cutting
49/4+ 425	790 O-K#3	Parish creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting

49/5+ 650	950 O-K#3	No name creek	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
50/1+ 650	775 O-K#3	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
50/5+ 1025	1225 O-K#3	Gorst Creek	Yes	Skip				
31/3+ 300	500 S-K#2	No name creek	No	Skip	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting
32/1+ 200	400 S-K#2	Gorst Creek	Yes	Skip				
32/2+ 200	420	Wetlands	No	Cut Stump	Garlon 3A	Spot Treat w/in buffer	35' from waters edge	Selective Cutting

3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).

See Handbook — [Herbicide Use Near Irrigation, Wells or Springs](#) for buffers and herbicide restrictions.

Span		Well/irrigation/or spring	Herbicide	Buffer	Other notes/measures
From	To				
1/1+ 0	1/3+ 0	Water Shed	None	Buffer built into control area.	Selective Cutting
2/5+ 40	360	Well	None	164' Buffer for all herbicides	Selective Cutting Only
5/2+ 586	914	Well	None	164' Buffer for all herbicides	Selective Cutting Only
6/3+ 932	1132	Well	None	164' Buffer for all herbicides	Selective Cutting Only
17/1+ 760	17/2+ 60	Well-Monitoring	None	164' Buffer for all herbicides	Selective Cutting Only

3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.

See Handbook — [T&E Plant or Animal Species](#) for requirements and determining presence.

Span		T&E Species	Method/mitigation or avoidance measures
From	To		
32/1+ 200	400 S-K#2 line	Anadramous Fish	Maintain a buffer of 100'. No herbicide w/in 100' of water edge. Spot spray 100-200' away from waters edge w/non to practically non-toxic herbicide (Garlon 3A).

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.

See Handbook — [Protecting Other Species](#) for requirements.

Species	Measures
Anadramous Fish	Applied for WA DFW HPA Permit

3.5 List any visually sensitive areas and the measures to be taken at these areas.

See Handbook — [Visual Sensitive Areas](#) for requirements.

N/A

3.6 List areas with cultural resources and the measures to be taken in those areas.

See Handbook – [Cultural Resources](#) for requirements.

Span		Describe sensitivity	Method/mitigation measures
From	To		
1/1	32/5	Cultural Sites	Skokomish tribe, Tom Strong, Cultural Resource Manager is not aware of any cultural sites on this transmission corridor. If a site is discovered during the course of vegetation control, work will be stopped in the vicinity and the local tribe will be contacted as well as the BPA Environmental Specialist.

3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.

See Handbook – [Steep/Unstable Slopes](#) for requirements.

Span		Describe sensitivity	Method/mitigation measures
From	To		
30/3+ 400	850 S-K#4	Steep Slope	Selectively cutting trees whose tops that are within 50' of the conductor at max sag. No herbicide application to maintain soil stability.
30/5+ 900	110 S-K#4	Steep Slope	Same mitigation as noted for 30/3+ 400 to 850.

49/4+ 425	790 O-K#3	Steep Slope	Same mitigation as noted for 30/3+ 400 to 850.
49/5+ 650	950 O-K#3	Steep Slope	Same mitigation as noted for 30/3+ 400 to 850.
31/3+ 300	500 S-K#2	Steep Slope	Same mitigation as noted for 30/3+ 400 to 850.

3.8 List areas of spanned canyons and the type of cutting needed.

See Handbook – [Spanned Canyons](#) for requirements.

N/A

4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — [Methods](#)

4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — [Manual](#), [Mechanical](#), [Biological](#), [and Herbicides](#) for requirements for each of the methods.

See attached prescription cut sheets.

Span		Methods, including herbicide active ingredient, trade name, application technique
From	To	
34/2	60/2	For non-sensitive areas (spans) cut stump/basal treatment with 25% Garlon 4 and 75% Forest Crop Oil (FCO). 50/50 Accord or Garlon 3A/Water for stump treatment in the riparian zones; Stubble treat structure sites and the right-of-way roads with 90% Water, 6% FCO, 3% Garlon 4 and 1% Tordon 22 K. Follow-up herbicide treatment: foliar application with 3-5% Garlon 3A herbicide, remainder % water. Foliar treat Scotch broom with Garlon 3A.

5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — [Debris disposal](#) for a checkbox list and requirements.

Debris Disposal:

Chip (Mechanical brush disposal unit cuts brush into chips 4 in. or less in diameter, and spread over ROW, piled on ROW, or trucked off site. Trunks too large for the chipper are limbed and the limbs chipped. Trunks are placed in rows along the edge of the right-of-way or scattered, as the situation requires.)

Lop and Scatter (Branches of a fallen tree are cut off (lopped) by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are occasionally cut in 1-to-2-m (4-to-8-ft.) lengths. The cut branches and trunks are then scattered on the ground, laid flat, and left to decompose.)

Mulch (Mulching is a debris treatment that falls between chipping and lop-and-scatter. The debris is cut into 1-to-2-ft. lengths, scattered on the right-of-way and left to decompose. This method is used when terrain and conditions do not allow the use of mechanical chipping equipment.)

5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — [Reseeding/replanting](#) for requirements.

N/A

Native grasses and low growing species are present on the entire right-of-way that will seed into the areas that will have lightly disturbed soil predominately located on the right-of-way roads. BPA expects 2-3 vehicles of the brush contractor and 1 contract inspector's vehicle will be present on the site. A brush machine will mulch the structure sites and right-of-way roads where Scotch Broom and Black Berries are present.

5.3 If not using native seed/plants, describe why.

N/A

5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.

Monitoring of the success of the brush-cutting program will begin the spring in which evaluation of soil erosion as a result of the brush-cutting program will be made. If grass seeding is necessary, native grass seed will be applied.

6. DETERMINE MONITORING NEEDS

See handbook — [Monitoring](#) for requirements.

6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

Monitoring of the effectiveness of the herbicide treatment will begin in the spring and follow up treatment of cut stump/basal or foliar treatment of target vegetation. The stump/basal mixture of the product is 25% Garlon 4 and 75% FCO and 90+% water, 3-5% Garlon 3A and when it is necessary Depo-RTU is added to the mix to retard drift.

6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.

Annually patrol the transmission line by the line crew and the Natural Resource Specialist will periodically monitor the right-of-way for the effectiveness of the vegetation management activities on the right-of-way and assess other resources that may have been adversely affected. BPA's vegetation maintenance activities may increase the public use of the right-of-way due to increased accessibility of the easement that may cause additional damage to the natural resources.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — [Prepare Appropriate Environmental Documentation](#) for requirements. . Also prepare Supplement Analysis — [Supplement Analysis](#) — for signature.

7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are “substantial”.

All proposed brush cutting and chemical treatment activities on this corridor are noted in the EIS.

7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.

NO